CASTLE RIVER

SUB-REGIONAL

INTEGRATED RESOURCE PLAN

ANNUAL REPORT
1989-1990

August 1990

Alberta
FORESTRY, LANDS AND WILDLIFE

Southern Region
Regional Resource Management Committee

CASTLE RIVER

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ANNUAL REPORT
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Prepared by
Regional Resource Management Committee
Southern Region

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1.0 INTRODUCTION

This document provides an overview of the resource management and development activities that have occurred under the Castle River Sub-regional Integrated Resource Plan (IRP) from April 1, 1989 to March 31, 1990. Information in this report is current to that date only. Completion of this annual report fulfils one requirement of the approved implementation framework for integrated resource plans.

In describing plan implementation, the report deals alphabetically with the resource sectors identified in the IRP, summarizing for each the various activities of the involved government agencies. Only those resource sectors for which implementation activities have occurred are identified. In addition to addressing those activities that have taken place specifically as a result of the IRP, this report also contains a summary of the ongoing operational activities of the agencies involved in the IRP area.

2.0 ACCESS

2.1 ACCESS MANAGEMENT PLAN (AMP)

PROJECT/ACTIVITY:

- Development of an access management plan to provide operational level direction for the recreational use of on- and off-highway vehicles in the Castle River sub-region.

PARTICIPANTS:

- The plan is being developed collectively by interested and affected parties. It involves government agencies, public interest groups, industry and local authorities.
- Plan development is being co-ordinated by the Alberta Forest Service (AFS).

ANTICIPATED ACTIVITIES 1989-1990:

- Completion of the AMP by the project working group (including mapping and recommendations).
- Review by the Southern Regional Resource Management Committee (RRMC), local planning authorities and provincial government agencies.
- General public review (public meeting[s]).
- Submission for review and approval before implementation.

RESULTS ACHIEVED:

- Draft AMP completed by project working group and prepared for general public review.
- Draft AMP reviewed by Southern RRMC, local planning authorities and provincial government agencies prior to general public review.
- General public review undertaken at both open house and panel sessions in Blairmore, Pincher Creek and Lethbridge.

RESULTS VERSUS EXPECTATIONS:

- Draft AMP not submitted for review and approval for implementation. Public review indicated the need for working group to review draft AMP. Input received at public meetings is being reviewed and assembled for working group use.

ANTICIPATED ACTIVITIES 1990-1991:

- Complete issue summary report and transcripts for working group use.
- Draft AMP to be re-evaluated/reviewed by working group.
- Continued public involvement in draft AMP project (possible further public meetings, or working group responses to issues will be sent to those who attended public meetings).
- Submission of AMP for review and approval for implementation.

3.0 FISHERIES

3.1 HABITAT DEVELOPMENT

3.1.1 Mitigation

PROJECT/ACTIVITY:

- Mitigation of adverse impacts on habitat, which resulted from industrial development or construction projects, as required.

PARTICIPANTS:

- Alberta Fish and Wildlife (F&W) in association with industrial companies and other government departments.

ANTICIPATED ACTIVITIES 1989-1990:

- Ongoing mitigation projects as required.

RESULTS ACHIEVED:

- Shell Canada Ltd. installed two rock sills, a rock revetment, two tree revetments and a crib wall with willow plantings at a pipeline crossing on Pincher Creek, to provide bank protection and improved cover for cutthroat trout. In part, these replaced previous mitigation structures built in 1986, that had to be removed during pipeline installation.
- Shell Canada Ltd. constructed approximately 17 weir-pools to improve cover for cutthroat and bull trout in Whitney Creek, as mitigation for the impacts of road and wellsite construction.
- Shell Canada Ltd. improved rock sills and revetments on Whitney Creek in conjunction with a pipeline installation.
- Shell Canada Ltd. installed a rock sill on Spionkop Creek to provide protection for an exposed telemetry line and cover for cutthroat trout. Bank protection and channel consolidation were also provided to mitigate erosion resulting from past pipeline construction.

ANTICIPATED ACTIVITIES 1990-1991:

- Ongoing mitigation projects as required.

3.1.2 Alberta Fish and Wildlife Division/Industry Joint Ventures

PROJECT/ACTIVITY:
- Habitat development projects in co-operation with industry and other jurisdictions.

PARTICIPANTS:
- F&W in association with various companies and authorities.

ANTICIPATED ACTIVITIES 1989-1990:
- The Ruby Lake outlet structure built in 1987 will be inspected and repairs conducted if necessary.

RESULTS ACHIEVED:
- Filling of Butcher Lake (the new official name for Prairie Bluff Lake) was completed, minor repairs were made to the outlet structure, slopes were seeded, and minor changes were made at the inlet to accommodate local grazing interests.
- A Buck for Wildlife project was conducted on 3 km of Lost Creek to provide improved cover for cutthroat trout. Ten V-sills were installed, as well as boulder clusters, bank protection material and flow deflectors.

RESULTS VERSUS EXPECTATIONS:
- It was not possible to conduct an inspection of Ruby Lake.

ANTICIPATED ACTIVITIES 1990-1991:
- The Ruby Lake outlet structure built in 1987 will be inspected and repairs conducted if necessary.

3.2 STREAM AND LAKE INVENTORIES

PROJECT/ACTIVITY:
- Inventory of fish populations in streams and lakes.

PARTICIPANTS:
- F&W

ANTICIPATED ACTIVITIES 1989-1990:
- Conduct fish population estimates on Lost Creek before undertaking habitat improvement activities.
- Inspect potential commercial game fish farm locations on Cottonwood Creek.
- Assess the rainbow trout population in Mami Lake following two years of stocking larger-sized juveniles.
- Attempt to transplant golden trout from Rainy Ridge Lake to Ruby Lake.

- Complete a lake inventory survey on Bathing Lake.
- Resample section of the West Castle River to obtain current population estimates.

RESULTS ACHIEVED:

- Mark-and-recapture electrofishing sampling completed August 15 and 17, 1989 in two sections of Lost Creek. This stream appears to have a cutthroat trout population of approximately 371 fish/km (all sizes). Only 4 percent were legal sized fish.
- Waterton Homestead Campground commercial game fish farm site inspected and approved March 26, 1990.
- Mami Lake was test-netted October 6 and 7, 1989.
- One hundred and twenty-five golden trout fingerlings were captured in the outlet of Rainy Ridge Lake on September 7, 1989 and transplanted into Lower Southfork Lake.
- The Bathing Lake inventory report was written in March 1990, and is in the final stages of typing.
- Population estimates of fish in the West Castle River were completed in September and October. The cutthroat trout population appears to be increasing dramatically (400% increase) and a few more legal sized fish are showing up (10%). No estimates could be made for bull trout and no rocky mountain whitefish owing to insufficient recapture numbers.
- Age and growth measurements were completed on Beauvais Lake fish caught in the September 1988 test-netting program, and the stomach contents were analyzed.

RESULTS VERSUS EXPECTATIONS:

- The original assessment of the effect of stocking larger fish in Mami Lake was invalidated because the 1989 stocking plans had to be suspended owing to outbreak of the IPN viral disease in the Sam Livingstone Fish Hatchery.

ANTICIPATED ACTIVITIES 1990-1991:

- Transplant golden trout from Rainy Ridge to Southfork lakes.
- Clean debris out of Barnaby Lake outlet stream.

- Assess success of Ruby Lake 1987 cutthroat plantings.
- Assess survival, age and growth of rainbow trout in Beavermines Lake.
- Population estimates of fish in West Castle River.

3.3 FISHERIES SURVEYS

PROJECT/ACTIVITY: - To provide direction for future species management, habitat protection and development strategies.

PARTICIPANTS: - F&W.

ANTICIPATED ACTIVITIES 1989-1990: - Collect creel data whenever possible from lakes and streams within the Castle River IRP boundaries.

RESULTS ACHIEVED: - When possible, creel data were collected by F&W and Recreation and Parks (R&P) Department staff at various key locations in the Castle River IRP area.

1. Major Lakes - Creel data were collected from three main lakes in the Castle River IRP area. The following table summarizes the data collected in 1989.

Table 1. Angler catch/use information, Castle River IRP, 1989

LAKE	NO. OF CENSUS DAYS	NO. OF ANGLERS PRESENT	NO. OF ANGLERS INTERVIEWED	TOTAL HOURS FISHED	TOTAL RAINBOW TROUT CAUGHT	C.U.E FISH/HOUR	OTHER TROUT SPECIES CAUGHT
Beavermines	24	403	299	628	323	0.51	3 bull tr
Beauvais	37	670	438	919	146	0.16	87 brn tr
Mami	32	615	543	1234	338	0.27	-

2. Streams - Creel data collected from streams within the Castle River IRP area in 1989 are summarized in Table 2. The transfer of a Fish and Wildlife Officer previously stationed in Blairmore reduced the number of available staff, which resulted in a sharp decline in creel data in 1989.

Table 2. Angler/use data in streams in the Castle River IRP area, 1988

STREAMS	NO. OF CENSUS DAYS	NO. OF ANGLERS INTERVIEWED	TOTAL HOURS FISHED	RAINBOW TROUT CAUGHT (CUE)	CUTTHROAT TROUT CAUGHT (CUE)	WHITEFISH CAUGHT (CUE)	BULL TROUT CAUGHT (CUE)
Carbondale R.	2	4	2.5	0 -	7 (2.8)	0 -	-
Castle R.	3	8	14.5	0 -	0 0	0 -	* (0.7)
Lost Creek	1	8	20.5	0 -	51 (2.4)	0 -	- -
Lynx Creek	5	8	8.2	0 -	11 (1.3)	0 -	1 (0.12)
S. Castle R.	1	2	5.0	0 -	2 (0.4)	0 -	0 -
W. Castle R.	2	14	15.2	0 -	17 (1.1)	0 -	0 -

3. High Mountain Lakes - Voluntary creel cards were collected from a creel box at Bovin (Blue) Lake. The 19 cards covered a period from June 18, 1988 to October 19, 1988 (124 days), and indicated there were 58 anglers who fished for 219.5 hours and caught 161 brook trout and 2 rainbow trout (0.74 fish/hr).

ANTICIPATED ACTIVITIES 1990-1991:

- The voluntary creel box will be removed from the Barnaby/Southfork location and set up at South Scarpe Lake.
- Whenever possible, creel data will be collected from lakes and streams within the Castle River IRP area.

4.0 RANGE

4.1 Range Management, Resource Management Areas (RMAs) A,B,C,D

PROJECT/ACTIVITY:	- Manage domestic livestock grazing to achieve uniform forage use. - Maintain healthy range condition; intensify range management practices. - Identify areas suitable for forage production on a sustained-yield basis. - Note areas critical for the maintenance of wildlife in the area.
PARTICIPANTS:	- AFS lead. Consultation with F&W and Public Lands Division (Lands).
ANTICIPATED ACTIVITIES 1989-1990:	- Continue to implement existing range management plans to achieve the identified project/activity objectives. - Analyze data received from Gladstone Creek area range inventory to determine the level of use by domestic livestock in that area.
RESULTS ACHIEVED:	- Livestock were managed according to existing plans. - Data continued to be collected on forage species composition and productivity.
RESULTS VERSUS EXPECTATIONS:	- Analysis of data from Gladstone Creek was not completed because of staff turnover in provincial headquarters.
ANTICIPATED ACTIVITIES 1990-1991:	- Undertake range inventory of the Castle River, Mill Creek, Southend and Jackson Creek allotments. This is a first step towards preparing range management plans and range improvement proposals.

4.2 Stocking Levels, RMAs A,B,C,D

PROJECT ACTIVITY:	- Maintain 1977 stocking levels.

PARTICIPANTS: - AFS lead.

ANTICIPATED ACTIVITIES 1989-1990:
- Identify sites suitable for range improvement.
- Monitor stocking rates and assess range conditions.
- Issue permits as required.

RESULTS ACHIEVED:
- All allotments received at least one inspection.
- Thirty-six permits issued for 4726 AUM's.

RESULTS VERSUS EXPECTATIONS: - The identification of sites suitable for range improvement was delayed to 1990/91.

ANTICIPATED ACTIVITIES 1990-1991:
- Conduct inventories on sites suitable for range improvement.
- Monitor stocking rates and assess range condition.
- Issed permits as required.

4.3 Range Management, RMA E

PROJECT/ACTIVITY: - Conduct periodic lease inspections and renewals as required.

PARTICIPANTS: - Lands lead. Consultation with F&W and AFS as required.

ANTICIPATED ACTIVITIES 1989-1990: - Six grazing lease renewals and seven periodic inspections are projected.

RESULTS ACHIEVED: - Six grazing leases were renewed and, where necessary, changes in management were requested. Recommendations from a range survey were implemented on two grazing leases and a management plan was completed.

RESULTS VERSUS EXPECTATIONS: - Seven grazing lease/permit periodic inspections were not completed because the allocated time was redirected to other projects.

ANTICIPATED ACTIVITIES 1990-1991: - Two grazing lease renewals and six periodic inspections are projected.

4.4 Range Improvement, RMA E

PROJECT/ACTIVITY:	- Undertaking a wide variety of range improvement projects such as brushing, controlling regrowth and pasture seeding.
PARTICIPANTS:	- Lands lead. Consultation with F&W and AFS.
ANTICIPATED ACTIVITIES 1989-1990	- Continuation of range improvement activities on the four remaining grazing leases. Projects will include herbicide application to control aspen regrowth, pasture seeding and repiling of windrows.
RESULTS ACHIEVED 1989-1990:	- Four range improvement projects were carried over from 1988 and one project added in 1989, for a total of five projects. Three projects were completed in 1989. Activities undertaken were repiling of windrows, herbicide application to control aspen regrowth and construction of a cross-fence.
ANTICIPATED ACTIVITIES 1990-1991:	- A continuation of range improvement projects on the remaining two grazing leases. Projects will include herbicide application to control aspen regrowth and repiling of windrows. Additional applications are anticipated during the year based on initiation by the lessee.

5.0 RECREATION

5.1 Private Sector Developments and Commercial Operations

PROJECT/ACTIVITY:
- Reviewing applications and monitoring commercial developments, operations and services consistent with the recreation intent of the area.

PARTICIPANTS:
- AFS lead.

ANTICIPATED ACTIVITIES 1989-1990:
- Monitor pending expansion of facilities and operations at the Westcastle ski area.
- Monitor existing commercial operations.

RESULTS ACHIEVED:
- Three commercial trail riding permits were issued.
- Inspections of operator camps were conducted.
- The proposed Westcastle development was monitored. This project is currently in the master-planning and environmental impact assessment (EIA) development stages.

ANTICIPATED ACTIVITIES 1990-1991:
- Monitor proposed Westcastle development.
- Monitor existing commercial operations.
- Commercial trail riding permit issuance in the Carbondale area should be limited because of the large amount of public equestrian use and general recreation use.

5.2 Backcountry Management

PROJECT/ACTIVITY:
- Monitoring backcountry use:

  (1) to ensure use/operations are carried out as per provincial regulations and policy;
  (2) to identify trails and campsites where maintenance or mitigation measure are required; and
  (3) to meet users in the field and establish use levels and patterns.

PARTICIPANTS:
- AFS lead.

ANTICIPATED ACTIVITIES 1989-1990:	- Development of a formal backcountry patrol program. - Continuation of trail maintenance and campsite clean-up. - Initiate inventory and mapping of backcountry trails and campsites.
RESULTS ACHIEVED:	- Backcountry patrols undertaken on an informal basis within budget limitations.
RESULTS VERSUS EXPECTATIONS:	- A formal backcountry program was not established owing to budget limitations and priorities elsewhere in the Bow-Crow Forest.
ANTICIPATED ACTIVITIES 1990-1991:	- Trail maintenance and grooming snowmobile and cross-country ski trails will not occur during the 1990/91 season because of budget cuts.

5.3 Facilities and Opportunities

PROJECT/ACTIVITY:	- Increase recreational opportunities by providing a wide range of high quality, accessible and affordable facilities.
PARTICIPANTS:	- AFS lead.
ANTICIPATED ACTIVITIES 1989-1990:	- Contingent on funding availability, continuation of services and maintenance to ensure provincial standards are maintained at AFS-designated facilities. - The north loop of the Castle River Falls Forest Recreation Area will be operated as a group camp on a trial basis.
RESULTS ACHIEVED:	- Minor maintenance undertaken on campgrounds, group camps and staging areas. - Use statistics have been compiled for forest recreation areas within the Castle River IRP area. These are shown in Table 3.

TABLE 3.

USER STATISTICS: FOREST RECREATION AREAS				
		1989	1988	1987
Beaver Mines Lake	Camping	40803	35501	27050
	Day Use	5405	8784	-
Castle Falls	Camping	14246	11504	8742
	Day Use	2323	5437	-
Castle River Bridge	Camping	12605	9286	7830
	Day Use	422	426	-
Lynx Creek	Camping	6589	9158	6896
	Day Use	448	394	-
Carbondale Snowmobile Staging		938	-	-
RANDOM CAMPING				
		1989	1988	1987
Beaver Mines	Camping	2706	3991	-
	Day Use	-	258	-
Carbondale	Camping	301	4946	-
	Day Use	-	1310	-
Lower Castle	Camping	1086	2485	-
	Day Use	-	258	-
Lost Creek	Camping	5031	18071	-
	Day Use	-	694	-
Lynx Creek	Camping	924	9282	-
	Day Use	-	1773	-
Mill Creek	Camping	541	198	-
	Day Use	-	198	-
South Castle	Camping	205	1468	-
	Day Use	-	635	-
Westcastle	Camping	1789	12769	-
	Day Use	-	6899	-
Drywood	Camping	582	-	-
	Day Use	-	-	-

ANTICIPATED ACTIVITIES 1990-1991:

- Upgrade a major portion of the Beaver Mines campground.
- Attempt to maintain all recreation areas according to provincial standards.

6.0 TIMBER

6.1 Forest Protection

PROJECT/ACTIVITY:
- Protect the forest from fire, insects and disease.

PARTICIPANTS:
- AFS lead.

ANTICIPATED ACTIVITIES 1989-1990:
- Adherence to a comprehensive fire management plan.

RESULTS ACHIEVED:
- Three fires were suppressed:
  - DB6-1-89; 0.1 ha; man caused.
  - DB6-4-89; 0.1 ha; lightning.
  - DB6-5-89; 0.1 ha; unknown cause.
- Two Pheromone Bait sites were established to monitor mountain pine beetle populations.
- Two permanent sample plots were established to monitor dwarf mistletoe on a long-term basis.
- More than 200 suspect trees were surveyed and any trees with beetle were debarked or bucked up and piled to be burned.

ANTICIPATED ACTIVITIES 1990-1991:
- Continued monitoring of mountain pine beetle populations.
- Continued monitoring of dwarf mistletoe throughout the area.
- Adherence to a comprehensive fire management plan.

6.2 Reforestation

PROJECT/ACTIVITY:
- Reforestation of lands in the sustained yield timber base.

PARTICIPANT:
- AFS lead.

ANTICIPATED ACTIVITIES 1989-1990:

- Free-to-grow surveys: 230.6 ha.
- Regeneration surveys: 833.3 ha.
- Planting: 204 ha (174 200 trees).
- Ongoing maintenance of genetics test site. Survival assessment of the Douglas fir test site.

RESULTS ACHIEVED:

- Free-to-grow surveys: to assess the success of long-term reforestation efforts, surveys were undertaken on 287.4 ha to determine if reforested species had outcompeted surrounding vegetation.
- Regeneration surveys: undertaken on 423.7 ha.
- Planting: 209.6 ha were planted (174 700 trees).
- Scarification: 77.8 ha were scarified.
- Aerial seeding: 219.7 ha were aerially seeded.
- Genetics: ongoing maintenance of the West Castle genetics site was completed. A superior cone collection project for Lodgepole Pine was completed to enhance genetically improved seed collected from the Tent Mountain area. Six kilograms of seed were collected.

RESULTS VERSUS EXPECTATIONS:

- The 833.3 ha regeneration survey figure for anticipated activities in 1989-1990 included an area in the Livingstone-Porcupine Hills IRP by mistake. Regeneration surveys undertaken (423.7 ha) were in line with actual expectations.

ANTICIPATED ACTIVITIES 1990-1991:

- Free-to-grow surveys: 65.0 ha.
- Regeneration surveys: 253.0 ha.
- Planting 191.5 ha (159 000 trees).
- Scarification: 656.3 ha.
- Aerial seeding: 84.1 ha.
- Additional stands will be monitored for superior cone collection.
- Continued maintenance of West Castle genetic test site.

6.3 Timber Harvesting

PROJECT/ACTIVITY:

- Integrated logging with other land use activities through forest management plans.
- Use landscape logging and other aesthetic harvesting practices as appropriate.

PARTICIPANTS:	- AFS lead.
ANTICIPATED ACTIVITIES 1989-1990:	- Issuance of local timber permits and forest products permits. - No cruising programs are anticipated. - No further activity is planned until 1991.
RESULTS ACHIEVED:	- 20 Local Timber Permits were issued (6417 m^3 of wood). A total of 1622 Forest Products Permits were issued (e.g., Christmas trees, transplants, posts and poles, firewood). - No licence harvesting was conducted.
ANTICIPATED ACTIVITIES 1990-1991:	- Cruise order will be completed and data compiled. - A miscellaneous timber use plan will be completed for the Gladstone-Mill Creek miscellaneous timber use area. - Local Timber Permits and Forest Products Permits will be issued as demand warrants. - Preliminary work will be carried out on Goat Creek licence C5-L2. An annual operating plan will be submitted in the fall of 1990 for approval.

7.0 WATERSHED

7.1 Watershed Reclamation

PROJECT/ACTIVITY:	- Maintain water quality. - Minimize upland soil erosion and stream sedimentation.
PARTICIPANTS:	- AFS lead.
ANTICIPATED ACTIVITIES 1989-1990:	- A joint AFS/F&W inventory of sites requiring reclamation work will commence in 1989. - Full reclamation of a mineral exploration trial site located in prime protection and critical wildlife zones on Spionkop Ridge will be undertaken, providing this is publicly acceptable.
RESULTS ACHIEVED:	- The Spionkop Ridge reclamation work was undertaken with monies from the Heritage Savings Trust Fund program.
RESULTS VERSUS EXPECTATIONS:	- The joint AFS/F&W inventory of reclamation sites was not conducted since completion of the AMP was a prerequisite. A watershed management crew, however, did commence inventory work in the Lost Creek area.
ANTICIPATED ACTIVITIES 1990-1991:	- Reclamation of an abandoned sawmill in the Gardner Creek area (NW 14-5-4-W5M). This will entail sawdust and slab clean-up.

7.2 Water Sampling

PROJECT ACTIVITY:	- Evaluating the effectiveness of operating ground rules for controlling stream sedimentation. - Identification of locations needing remedial erosion control because of salvage operations conducted on areas damaged by mountain pine beetle.
PARTICIPANTS:	- AFS lead.

ANTICIPATED ACTIVITIES 1989-1990:	- Continued monitoring of Goat Creek. - Monitor for coliform/faecal coliform contamination in one to four streams possibly contaminated by grazing activity.
RESULTS ACHIEVED:	- Continued low-intensity sampling of Goat Creek. - Seven sites were monitored for faecal coliform contamination - three on Castle River and one each on Mill, North Drywood, South Drywood and Spionkop creeks.
ANTICIPATED ACTIVITIES 1990-1991:	- Continued monitoring of Goat Creek. - Continued monitoring for faecal coliform contamination at the seven sites in RMA E.

8.0 WILDLIFE

8.1 Elk Winter Range

PROJECT/ACTIVITY:
- Evaluation of winter range used by the Castle-Carbondale elk herd.

PARTICIPANTS:
- F&W lead.

ANTICIPATED ACTIVITIES 1989-1990:
- A detailed assessment of range conditions will continue with examination of forage use levels scheduled to be completed during the spring and fall of 1989.

RESULTS ACHIEVED:
- A progress report has been prepared outlining 1988/89 study results.
- Field data collections were conducted during the spring and fall of 1989.

ANTICIPATED ACTIVITIES 1990-1991:
- Field data collection will be conducted during the spring and fall of 1990.
- 1989/90 forage use data will be analyzed and a summary prepared.
- A final program report, outlining results of the three year study (1988/89 - 1990/91) will be prepared.

8.2 Mountain Goats

PROJECT ACTIVITY:
- Determination of the status of mountain goats south of Highway #3.

PARTICIPANTS:
- F&W lead.

ANTICIPATED ACTIVITIES 1989-1990:
- A goat population monitoring program is proposed for 1989 to continue evaluation of the situation.

RESULTS ACHIEVED:
- A summer goat survey was completed during mid-July, 1989. Population status information collected during the survey indicated suppressed numbers of goats, especially in the Lost Creek

region. A hunting season will not be reinstated until population recovery has occurred.

ANTICIPATED ACTIVITIES 1990-1991:
- Implement inventory program to obtain additional information on population status, production and recruitment.
- Initiate interprovincial management discussions with British Columbia wildlife officials.

8.3 Elk Population Monitoring

PROJECT/ACTIVITY:
- Determination of the status of the Castle-Carbondale elk herd.

PARTICIPANTS:
- F&W lead.

ANTICIPATED ACTIVITIES: 1989-1990:
- An annual census will be scheduled for 1989/90. 1990.

RESULTS ACHIEVED:
- A survey of the Castle-Carbondale elk population was completed during February 1990. The elk count was lower than expected, but poor survey conditions are thought to have affected program results. It is presumed that the elk population remains near prescribed goals.

ANTICIPATED ACTIVITIES 1990-1991:
- A census program is proposed for 1990-91.

8.4 Moose Population Monitoring

PROJECT/ACTIVITY:
- Determination of the status of the foothill-mountain moose population.

PARTICIPANTS:
- F&W lead.

ANTICIPATED ACTIVITIES 1990-1991:
- The biennial population monitoring program will again be scheduled for 1990-1991.

RESULTS ACHIEVED:
- No activities were scheduled for 1989-1990.

ANTICIPATED ACTIVITIES 1990-1991: - The biennial population monitoring program is scheduled for 1990-1991.

8.5 Moose Habitat Stratification Mapping (NEW INITIATIVE)

PROJECT/ACTIVITY: - Stratification of moose habitat in wildlife management unit (WMU) 302. Development of updated population survey procedure based on habitat stratification.

PARTICIPANTS: - F&W lead.

ANTICIPATED ACTIVITIES 1989-1990: - Using recently developed vegetation cover maps, moose habitat will be stratified and an updated population inventory system will be developed.

RESULTS ACHIEVED: - Moose habitat stratification map products were completed for WMU 302.

ANTICIPATED ACTIVITIES 1990-1991: - Develop population survey procedure based on stratified habitat.

8.6 Castle-Carbondale-Beauvais Lake Elk Study (NEW INITIATIVE)

PROJECT/ACTIVITY: - In December 1989, the Department of Forest Science at the University of Alberta initiated a co-operative elk study in the region south of Highway 3, southwest of Pincher Creek. Some major objectives of this study are:

1. To identify local herds and their sizes.
2. To describe seasonal movements and distribution.
3. To assess seasonal food habits and forage quality.
4. To determine whether seasonal use and the level of use of ranges in the Forest Reserve is affected by forage availability, hunting pressure, industrial activity and human activities.
5. To provide recommendations for habitat improvement to reduce depredation

problems and impact from industrial development.

PARTICIPANTS:

- Department of Forest Science, University of Alberta (lead). Project supporters to date include: F&W, Energy Resources Conservation Board (ERCB), R&P, Shell Canada Limited and the Rocky Mountain Elk Foundation.

ANTICIPATED ACTIVITIES 1989-1990:

- Trap and equip approximately 20 elk with radio collars. Begin movement and behaviour studies.

RESULTS ACHIEVED:

- Trapping activities during the winter of 1989-1990 resulted in 15 animals being equipped with radio collars. Some movement and behavioral data have been collected for the winter and early spring period.

ANTICIPATED ACTIVITIES 1990-1991:

- Continued monitoring of movements and behaviour.
- An assessment of seasonal food habitats and forage quality.
- Determine whether the seasonal and level of use of range in the Forest Reserve is affected by forage availability, hunting pressure, industrial activity and human activities.

9.0 ONGOING ADMINISTRATIVE AND OPERATIONAL ACTIVITIES

9.1 Overview

Day-to-day administrative and management activities often take place that are not related specifically to the Castle River IRP. The IRP, nevertheless, constitutes the framework within which some of these activities take place. In some cases, such as with the review of disposition applications and other referrals, the link with the IRP may be quite explicit. Accordingly, a summary of ongoing divisional operational activities is included below.

9.2 Alberta Forest Service

ACTIVITY: - Ensuring that land use activities are integrated and conform with the management intent for the Castle River planning area.

ANTICIPATED ACTIVITIES 1989-1990: - Approval, approval with conditions, or rejection of land use disposition applications.

RESULTS ACHIEVED: - Number and Type of Forest Land Use Referrals:

3	Geophysical
1	Pipeline Agreement
1	Miscellaneous Permit
2	Easements
7	TOTAL REFERRALS

ANTICIPATED ACTIVITIES 1990-1991: - Approval, approval with conditions,or rejection of Land Use Disposition Applications.

9.3 Alberta Fish and Wildlife

9.3.1 Referrals

Number and Type of Land Use Referrals

2 - Pipeline agreements
1 - Miscellaneous permit
4 - Easements
4 - Pipeline installation leases
3 - Geophysical programs
1 - Coal exploration permit
4 - Metallic minerals exploration
1 - Coal lease application
4 - Water resources permits
1 - Timber harvesting
1 - Motorcycle race
1 - AGT
1 - Commercial trail ride

28 TOTAL REFERRALS

9.3.2 Wildlife Occurrences

Fish and Wildlife responded to a number of wildlife support occurrences* during the reporting period as follows:

Number and Type of Wildlife Support Occurrence

7	- Beaver	
3	- Raccoon	
1	- Skunk	
3	- Fencing request	
2	- Elk	- crop
1		- haystack
2	- Deer	- garden
1		- haystack
6	- Coyote kill	
1	- Cougar kill	
6	- Grizzly bear	- sightings
4	- Black bear	- in yard
4		- in camp
2		- garbage
4		- sightings
1		- kill
11	- Road kills	
7	- Diseased & wounded animals	
6	- Diseased & wounded birds	
72	TOTAL OCCURRENCES	

9.4 Public Lands

The following administrative duties were carried out in RMA-E:

6 - Grazing lease renewal applications
5 - Range improvement projects
2 - Miscellaneous lease inspections
2 - Mineral surface lease applications
1 - Licence of occupation application
6 - Pipeline agreements
3 - Easements
5 - Geophysical programs

30 TOTAL REFERRALS

* Any wildlife situation requiring action by a Fish and Wildlife Officer.

10.0 HOUSEKEEPING CHANGES/AMENDMENTS

10.1 Changes to the IRP

No changes to the plan were requested or made during the reporting period.

10.2 Various Initiatives

Various events and initiatives are occurring within the Castle River area that may have implications for the IRP. They are as follows:

1. Westcastle Four Season Resort: Before approval of the Castle River IRP in June 1985, not only was the regional and provincial tourism potential of this ski area recognized, but a four season resort development concept had been approved in principle by the Alberta Cabinet. The plan made provision for the accommodation of future development requirements, consistent with the maintenance of other resource values, based on the information available at that time.

A proponent, Vacation Alberta Corporation, has now come forward with a detailed concept plan, so an environmental impact assessment and master planning process is currently underway. Alberta Forestry, Lands and Wildlife has been, and is continuing to be, vigilant to ensure that all proposals and evaluations occur in conformance with the provisions of the IRP.

If the current proposal leads to the development and operation of a facility, unforseen implications could arise that require a re-evaluation of the provisions in the IRP to ensure resource uses and values are being integrated effectively in this part of the planning area.

2. Access Management: At public reviews of the Crowsnest Corridor Local IRP (October 1989) and the draft AMP for the Castle River area (January 1990), there was considerable public interest in changing the existing provisions to better accommodate off-highway vehicle users, especially snowmobilers. This subject is extremely controversial. There is demand not only for snowmobile access linkage corridors across Zone 1 (as have been accommodated in IRPs approved subsequent to the Castle River IRP, e.g., Ghost River IRP), but also for "play areas." These demands will continue, and constitute one public expression of preference for the use, management and allocation of public lands in existing IRP areas.

3. Crown of the Continent: George Bird Grinnell referred to the Triple Divide Peak in Montana as the "Crown of the Continent." This area of watershed and geopolitical convergence, encompassing the greater Waterton-Glacier ecosystem, is one of the most biogeographically intact major ecoregions remaining in the North American continent. Currently there is interest in ensuring the continuing integrity of this ecosystem and in promoting co-ordinated management and additional protection for lands surrounding the "core" Waterton-Glacier International Peace Park.

Various proposals have been advanced, and on the Alberta side the Canadian Parks and Wilderness Society, the Waterton Biosphere Association and the Energy Resources Conservation Board have been promoting this concept. It seems likely that some kind of strategic planning or co-ordination initiative will emerge. There will inevitably be implications for the IRP, because this constitutes the major block of provincial public lands north of Waterton Lakes National Park.

4. Waterton Park Master Planning: The master plan for the park is currently undergoing revision. The interrelationship in resource use considerations between the national park and adjacent lands was addressed in the Castle IRP in zoning and provisions developed for RMA D (Castle - Front Range Headwaters). In the interests of regional integration, the national park's plans will be refined and modified, resulting in possible implications for revising the IRP.

5. Big Sagebrush Natural Area: A protective notation on the proposed Big Sagebrush Nautral Area has been maintained since the IRP was approved. Big Sagebrush may be considered for designation as a Natural Area under Order-in-Council in 1990-1991. If this occurs, this item will enter next year's workplan report under a new title, "Ecological Resources".

10.3 Major Plan Review

Over time, as conditions, events, circumstances and values change, plans become dated in many fundamental ways. In the RRMC's opinion, the Castle River IRP has weathered its first five years rather well. As the previous section demonstrates, however, there are a number of things happening that may significantly effect the IRP.

In addition to reporting on implementation progress in 1990-1991, next year's annual report will explicitly evaluate all previous annual reports and all current events and initiatives in an attempt to determine how well the plan is holding up and whether a major plan review should be initiated. Major plan reviews are scheduled through the provincial IRP program and can revise any aspect of an IRP. Unless exceptional circumstances arise, the earliest that a major plan review could be initiated would be in the 1992-1993 fiscal year.

11.0 ACRONYMS/INITIALISMS

The following acronyms/initialisms are use in this report:

AFS	Alberta Forest Service (a division of Forestry, Lands & Wildlife)
AMP	Access Management Plan
CUE	Catch per unit effort (numbers of fish caught per hour)
EIA	Environmental impact assessment
ERCB	Energy Resources Conservation Board
F&W	Fish & Wildlife (a division of Forestry, Lands & Wildlife)
IRP	Integrated Resource Plan
Lands	Public Lands (a division of Forestry, Lands & Wildlife)
R&P	Alberta Recreation and Parks
RRMC	Regional Resource Management Committee
RMA	Resource Management Area
WMU	Wildlife management unit